

## NEWS BRIEFS

### **YBM MAGNEX EXPANDS**

YBM Magnex International Inc. announced acquisition of the rare earth permanent magnet facilities in Southport and Burscough, England, that were operated by Philips REPM. The facilities will now be operated under the name of Crumax Magnetics Ltd. The company will manufacture high-energy permanent magnets and related products. In addition, YBM is establishing a polymer bonded permanent magnet business in Pewtowm, Pennsylvania, USA which is currently under construction ([www.thomasregister.com/ybm](http://www.thomasregister.com/ybm)).

### **AMR TECHNOLOGIES INC.**

AMR, under a new name of AMR Technologies Inc. separates and purifies rare earth materials at two plants in P. R. of China which it sells to major consumer electronic, computer and automotive sectors worldwide. AMR's subsidiary, Advanced Magnetic Materials (Thailand) Ltd. will manufacture Nd–Fe–B magnetic powder and magnets ([www.amr-ltd.com](http://www.amr-ltd.com)).

### **THE MAGNETICS CONFERENCE ICM '97, AUSTRALIA**

A total of 656 papers are included in the conference proceedings of the International Conference on Magnetism ICM '97, which was held in Cairns, Australia, in July 1997. The proceedings are published in the *Journal of Magnetism and Magnetic Materials* **177–181** (1998), 1–1508, and comprise four plenary papers, 24 invited papers, three forum

reports and 625 contributed papers. The next conference ICM 2000 will be held in Brazil.

### **MAGNETIC TREATMENT OF THE SWIMMING POOL WATER**

Researchers at Cranfield University (UK) claim that magnets help disinfectants to kill nearly a third more bacteria in swimming pools. Scaled-down pools holding 25 litres of water were used for testwork. The water was fed into one of the pools through a pipe with three permanent magnets attached to it. The device was useless on its own, but when used with sodium hypochlorite, 30 per cent more *Escherichia coli* bacteria were killed in the pool where the water had been subjected to a magnetic field. In addition, higher levels of free chlorine were found in the treated pool.

### **EVIDENCE FOR MAGNETAR – A NEUTRON STAR WITH A MAGNETIC FIELD**

A blast of gamma-rays and X-rays from a distant star arrived at Earth on 27th August 1998, giving the best evidence for a magnetar – a neutron star with a magnetic field stronger than any other known object in the Universe. The flash came from an object which lies 20 000 light years away in the constellation known as Aquila. Its magnetic field is estimated to be 800 trillion times the strength of the Earth's magnetic field.

### **CERN FULL-SCALE DIPOLE MAGNET FOR LHC**

The first full-scale prototype dipole for CERN's future Large Hadron Collider (LHC) was successfully demonstrated at CERN. The Italian Istituto Nazionale di Fisica Nucleare developed the magnet in collaboration with CERN while Ansaldo Energia was one of the main contractors. The magnet, cooled to 1.8 K was ramped up to the nominal LHC operating field of 8.3 T. The field was further increased until the magnet naturally quenched at 8.6 T. Weighing about 26 t, 15.2 m long with a magnetic length of 14.2 m, the magnet has a radius of curvature of 2700 m its twin apertures each have an inner diameter of 56 mm.